WHAT IS CLAIMED IS:

1   1. A method for performing a call processing operation to manage state information of access

2   nodes in a high-speed wireless data system, comprising the steps of:

3   when an access node coupled to a wireless private network makes a request for a call

4   connection with another access node coupled to the wireless private network, carrying out a call

5   connection between the access nodes, providing a high-speed wireless data service for the access

6   nodes, and carrying out a call connection release after completing the high-speed wireless data

7   service; and

8   updating state information of the access nodes according to the call connection and

9   connection release between the access nodes.

1   2. A method for performing a call processing operation to manage state information of access

2   nodes in a high-speed wireless data system, comprising the steps of:

3   when an access node coupled to a wireless private network makes a request for a call

4   connection with another access node coupled to the wireless private network, carrying out a call

5   connection between the access nodes and providing a high-speed wireless data service for the access

6   nodes;

7   updating state information of the access nodes to busy state information;

8   when the high-speed wireless data service for the access nodes is completed, carrying out a

9   call connection release; and

10   updating the state information of the access nodes to idle state information according to the

11   call connection release.

1   3. A method for performing a call processing operation to manage state information of access

2   nodes in a high-speed wireless data system, comprising the steps of:

3   when an access node coupled to a wireless private network makes a request for a call

4   connection with another access node coupled to the wireless private network, allowing a private

5   access network controller to carry out a call connection between the access nodes and to provide a

6   high-speed wireless data service for the access nodes;

7   allowing the private access network controller to request that state information of the access

8   nodes be updated;

9   allowing a data location register to update the state information of the access nodes to busy

10   state information according to a state information update request;

11   when the high-speed wireless data service for the access nodes is completed, carrying out a

12   call connection release between the access nodes and allowing the private access network controller

13   to request that the state information of the access nodes be updated; and

14   allowing the data location register to update the state information of the access nodes to idle

15   state information according to another state information update request.

4. The method of claim 3, with the data location register storing the information associated with the access node requesting for the call connection being equal to the information associated with the other access node.

5. The method of claim 4, with the private access network controller and the data location register being configured to being based on an Internet protocol.

6. The method of claim 5, with the private access network controller sending a state information update request message including current state information of the originating access node and the terminating access node to the data location register.

7. The method of claim 5, with the private access network controller sending a request message indicating the state information of the originating access node and the terminating access node to be updated to busy state information and the data location register searching for the subscriber information upon receiving the state information update request and updating the access node state information to busy state information.

8. A wireless data system, comprising:

a first access node receiving a first network service;

a second access node receiving a second network service;

4 a first private access network transceiver system setting up a session when the first access

5 node moves within the wireless service area of the first private access network transceiver;

6 a second private access network transceiver system setting up a session when the second

7 access node moves within the wireless service area of the second private access network transceiver;

8 and

9 a private access network controller carrying out a call connection between the access nodes

10 and to provide data service for the first and second access nodes when the first access node makes

11 a request for a call connection with the second access node coupled to the first network service and

12 the private access network controller requesting the state information of the first and second access

13 nodes to be updated.

1 9. The system of claim 8, further comprising a data location register updating the state

2 information of the access nodes to busy state information according to a state information update

3 request.

1 10. The system of claim 9, with the private access network controller requesting that the state

2 information of the access nodes be updated and carrying out a call connection release between the

3 access nodes when the data service for the access nodes is completed.

1 11. The system of claim 10, with the data location register updating the state information of

2 the access nodes to idle state information according to another state information update request.

12. The system of claim 11, with the first network service being a wireless private network.

13. The system of claim 12, with the second network service being a public land mobile network.

14. The system of claim 12, with the second network service being a public network.

15. The system of claim 13, with the data location register storing the information associated with the first access node of the wireless private network equal to the information associated with the second access node of the public land mobile network.

16. The system of claim 15, with the private access network controller and the data location register being configured to being based on an Internet protocol.

17. The system of claim 16, with the private access network controller sending a request message indicating the state information of the originating access node and the terminating access node to be updated to busy state information and the data location register searching for the subscriber information upon receiving the state information update request and updating the access node state information to busy state information.

1   18. A computer-readable medium having computer-executable instructions for performing

2   a method for performing a call processing operation to manage state information of access nodes in

3   a high-speed wireless data system, comprising:

4   when an access node coupled to a wireless private network makes a request for a call

5   connection with another access node coupled to the wireless private network, carrying out a call

6   connection between the access nodes, providing a high-speed wireless data service for the access

7   nodes, and carrying out a call connection release after completing the high-speed wireless data

8   service; and

9   updating state information of the access nodes according to the call connection and

10   connection release between the access nodes.

1   19. A computer-readable medium having computer-executable instructions for performing

2   a method for performing a call processing operation to manage state information of access nodes in

3   a high-speed wireless data system, comprising:

4   when an access node coupled to a wireless private network makes a request for a call

5   connection with another access node coupled to the wireless private network, carrying out a call

6   connection between the access nodes and providing a high-speed wireless data service for the access

7   nodes;

8   updating state information of the access nodes to busy state information;

9   when the high-speed wireless data service for the access nodes is completed, carrying out a

10   call connection release; and

11   updating the state information of the access nodes to idle state information according to the

12   call connection release.

1   20. A computer-readable medium having stored thereon a data structure for performing a

2   call processing operation to manage state information of access nodes in a high-speed wireless data

3   system, comprising:

4   a first field containing data representing when an access node coupled to a wireless private

5   network makes a request for a call connection with another access node coupled to the wireless

6   private network, allowing a private access network controller to carry out a call connection between

7   the access nodes and to provide a high-speed wireless data service for the access nodes;

8   a second field containing data representing allowing the private access network controller to

9   request that state information of the access nodes be updated;

10   a third field containing data representing allowing a data location register to update the state

11   information of the access nodes to busy state information according to a state information update

12   request;

13   a fourth field containing data representing when the high-speed wireless data service for the

14   access nodes is completed, carrying out a call connection release between the access nodes and

15   allowing the private access network controller to request that the state information of the access

16   nodes be updated; and

17   a fifth field containing data representing allowing the data location register to update the state

18   information of the access nodes to idle state information according to another state information

19   update request.